

Open Repositories 2014. June 9-13. Helsinki, Finland.

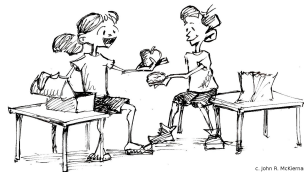
## Culture change in academia: Making sharing the new norm

**Erin C. McKiernan**

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Blog: [emckiernan.wordpress.com](http://emckiernan.wordpress.com)



## Current academic culture



OPEN  ACCESS? **NO.**



Images: UR - [openscience.com](http://openscience.com); LL - John R. McKiernan;  
LR - Opensourceway



Photo: Peter Reed via Flickr

## Regional and national level change



Image: Heraldry via Wikimedia Commons



# LA Referencia

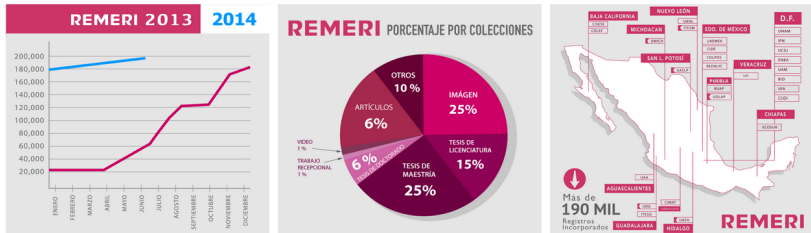
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- network of open institutional repositories in Latin America
- 100 institutions in 9 countries
- aims to share and give visibility to scientific production in the region
- 600K+ total documents
- 260K+ articles
- 260K+ Master's theses
- ~90K PhD dissertations

[lareferencia.redclara.net/rfr/](http://lareferencia.redclara.net/rfr/)

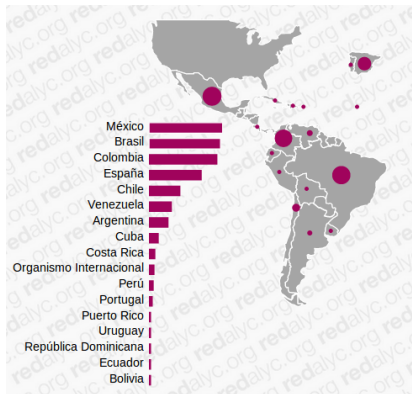
# REMERI



- network of open access repositories in Mexico
- 55 repositories from 28 institutions of higher education
- goals: integrate, disseminate, preserve and give visibility to the academic and scientific production in the country
- 190K+ documents, including articles, theses, and books

# Redalyc

*"Science that is not seen does not exist"*



[www.redalyc.org/home.oa](http://www.redalyc.org/home.oa)

- created by the Autonomous University of the State of Mexico in 2003
- open portal for scientific journals from Latin America, the Caribbean, Spain, and Portugal
- generates bibliometric and usage data for evaluation
- 900+ scientific journals
- 26K+ issues
- 330K+ full text articles
- involved in creation of national open access initiative

## Mexico's new open access initiative

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Photo: via @Redalyc on Twitter

[legislandoatufavor.com.mx](http://legislandoatufavor.com.mx)

- presented by Senator Ana Lilia Herrera Anzaldo
- in consultation with researchers at Mexican institutions
- approved unanimously by Congress, signed into law by president May 2014
- discusses benefits of open access to society
- encourages all researchers receiving public funds to make work openly available
- will create a national open access repository overseen by CONACyT

## Institutional level change



Photo: Colin Smith via Wikimedia Commons

## Mexican universities with open access mandates

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UAEM

Universidad Autónoma  
del Estado de México



UANL

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UNIVERSIDAD AUTÓNOMA DE NUEVO LEÓN

**But...many academics still do not have access to the literature they need**



Photo: Mauricio Fino via Flickr

## Not all scientists have access

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Photo: Delmoral815, via Wikimedia

The National Institute of Public Health is a large federal research institute in Mexico.

~300 researchers, ~700 students

### Access at INSP:

- **139** journals in total accessible via institute
- 88 journals in total with electronic access
- 66 journals with electronic access via paid subscriptions
- 22 journals with free electronic access provided by publisher
- 51 print-only journals (e.g. Cell, Nature, Science)
- access to select journals through consortium (CONRICyT)

Thanks to Edgar Aguilar Vera, INSP for info!



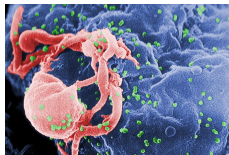
## High costs of subscriptions are prohibitive

Researchers in the institute study Chagas' disease, cholera, dengue, HIV, influenza, malaria, tuberculosis...

INSP does **NOT** have access to:

- Annual Reviews of Medicine
- Current Biology
- Nature Medicine
- Nature Immunology
- PNAS
- ...and MANY more

What is the limiting factor? COST.



Photos: Erwin Huebner (top); Jamas Gathany (middle); C. Goldsmith (bottom) via Wikimedia Commons

## Individual change: What can I do to improve access?



Photo: Erin C. McKiernan

## My pledge to be open

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- I will not edit, review, or work for closed access journals.
- I will blog my work and post preprints, when possible.
- I will publish only in open access journals.
- I will not publish in Cell, Nature, or Science.
- I will pull my name off a paper if coauthors refuse to be open.



**If I am going to 'make it' in science, it has to be on terms I can live with.**

## Concerns of early-career researchers

theguardian

News Sport Comment Culture Business Money Life & style Tra

Professional Higher Education Network About us Awards Find a

### Higher Education Network

Ideas, insight and debate from the global higher education community

Series: Early career researchers

Boycotting academic publishers is a career risk for young scientists



AT THE HEART OF THE  
HIGHER EDUCATION DEBATE

HOME NEWS COMMENT FEATURES BOOKS RANKINGS AWA

Breaking news Politics and Policy Research World news Interviews Stude

HOME NEWS

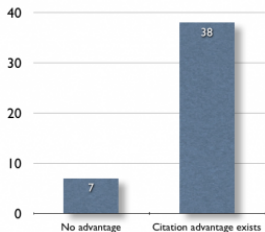
High price of gold: How early career researchers will suffer

If I publish in OA journals:

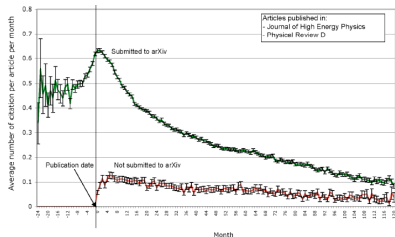
- I will be hiding my work away in less visible (low prestige) journals.
- I must relegate my work to low impact (low IF) journals.
- Peer review will be of low quality.
- I will not get a job/grant/tenure.
- It will cost too much.

# Be open, get more citations

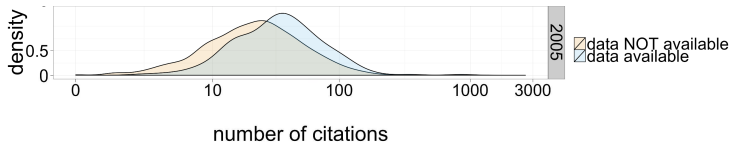
■ Results from studies on open access citation advantage



Wagner (2010), Issues in Science and Technology



Gentil-Beccot, Mele, Brooks (2009), arXiv:0906.5418



Adapted from Piwowar & Vision (2013), PeerJ 1:e175

## Concerns about open data

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Many researchers fear lost publications ('scooping')

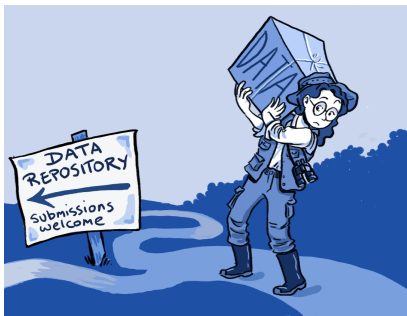


Image: Ainsley Seago doi:10.1371/journal.pbio.1001779.g001

Should we make data open? YES.

How do we change culture?

- educate researchers (e.g. show them citation advantage)
- have clear policies on citation of primary data
- recognize data sharing in tenure and promotion

Additional resources:

My post: [emckiernan.wordpress.com/2014/02/26/my-concerns-about-ploss-new-open-data-policy/](http://emckiernan.wordpress.com/2014/02/26/my-concerns-about-ploss-new-open-data-policy/)

PLOS's data policy: Bloom, Ganley, Winker (2014). doi:10.1371/journal.pbio.1001797

Article: Roche et al. (2014). doi:10.1371/journal.pbio.1001779

# Don't worship the Impact Factor!

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Image: John R. McKiernan

## But if you must...

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OA journals with moderate to high IFs:



IF 17.21



IF 15.25



IF 3.73



IF 12.69



IF 6.68



IF 6.53



IF 3.62

**frontiers**

IF 2.5 – 5.2



## Myth of poor peer review

- Retraction rate is highest in high IF subscription journals
- No controlled study comparing peer review in subscription vs. OA journals
- Bohannon 'sting' did not look at peer review in subscription journals
- Bohannon 'sting' found reputable OA publishers rejected spoof paper
- Peer review is often transparent in OA journals



Introduction

Methods

Results

Discussion

Conclusions

Supplemental Information

Additional Information and Declarations

 Peer Review history

 Questions

### Effects of manipulating slowpoke calcium-dependent potassium channel expression on rhythmic locomotor activity in *Drosophila* larvae

Erin C. McKiernan 

PubMed ID: 23638395

**You can read the full peer review history – every criticism, every change.**

## Hiring, tenure, and promotion...is tide changing?

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More than 400 organizations and 10,000 individuals have signed DORA, pledging:



- **not** to consider journal-based metrics (JIF) in hiring, promotion, or funding decisions
- the content of a paper will be weighed more heavily in evaluations than the journal in which it was published
- to consider the value and impact of all research outputs

Have YOU signed yet? [am.ascb.org/dora/](http://am.ascb.org/dora/)

## Institutions valuing open access, open data

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*"VCU Promotion and tenure committees should recognize that publication...[in open access formats] offers added value and greater public good"*

[www.facultysenate.vcu.edu/2010/11/17/vcu-faculty-senate-resolution-1/](http://www.facultysenate.vcu.edu/2010/11/17/vcu-faculty-senate-resolution-1/)



*"Open access to research data benefits society...Value inheres in data as a standalone research output"*

[openaccess.unt.edu/denton-declaration](http://openaccess.unt.edu/denton-declaration)

## Being open doesn't have to break the bank

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- Many OA journals do not charge authors (e.g. eLife).
- Journals like PeerJ have one-time, low-cost membership fees.
- Many journals have waivers (e.g. PLOS).
- Many institutions have publisher memberships (e.g. via BMC).
- Self-archiving costs nothing.



# Want to publish in non-OA journals? GO GREEN!





- institutional repositories
- personal website



**Erin McKiernan**

(Neuroscience)





figshare advisor











**Research statistics**

2168 views

23 shares

**Most popular uploads**

6 uploads in total

Being open as an early career researcher	presentation	 478 views  4 shares
Relating ion channel expression, bifurcation structure, and diverse firing patterns in a model of an iden...	paper	 446 views  4 shares
Open access options for publishing neuroscience research	fileset	 434 views  1 shares
Mitigating effects of vaccination given constraints in supply and daily administration capacity	fileset	 347 views  9 shares
A Brunswickian evolutionary developmental theory of preparedness and plasticity	paper	 254 views  2 shares

# Know your rights, don't sign them away

## Know your Author Rights

### What you should know when publishing your intellectual property


**NEGOTIATE**  
You have the right to change your publication agreement!

**NATIONAL GRANTS**  
If you have conducted your research using a national grant, you may be **REQUIRED** to make it publicly accessible.

**LOCAL REPOSITORIES**  
**FAIR USE** allows you to place your work in a library repository under certain restrictions.

**ADDENDUM**  
The easiest way to alter an agreement is by attaching a standardized addendum like the one from SPARC

**CHOOSE WISELY**  
You can choose to publish in a journal that supports **OPEN ACCESS** or **SELF ARCHIVING**



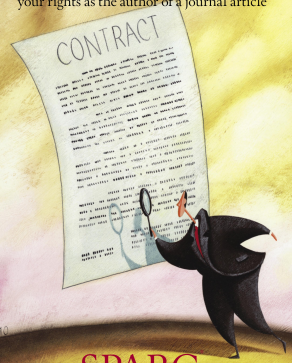
### For More Information:

SHERPA/ROMEO <a href="http://www.sherpa.ac.uk/romeo">www.sherpa.ac.uk/romeo</a>	PLOS <a href="http://www.plos.org/about/open-access">www.plos.org/about/open-access</a>	SPARC <a href="http://www.arl.org/sparc/">www.arl.org/sparc/</a>
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Via [openaccess.commonscs.cuny.edu/2014/03/07/you-know-what-you-write-but-do-you-know-your-rights/](http://openaccess.commonscs.cuny.edu/2014/03/07/you-know-what-you-write-but-do-you-know-your-rights/)

## AUTHOR RIGHTS

Use the SPARC Author Addendum to secure your rights as the author of a journal article



## SPARC

<http://www.arl.org/sparc/>

# What it really means to publish openly






CC-BY Danny Kingsley & Sarah Brown

## My advice to ECRs

- Make a list of OA journals in your field - know your options

Open access options for publishing neuroscience research Edit article

 OANeuroscienceJournals.ods	<a href="#">preview</a> <a href="#">download</a>
 OANeuroscienceJournals.xls	<a href="#">preview</a> <a href="#">download</a>
 OANeuroscienceJournals.pdf	<a href="#">preview</a> <a href="#">download</a>

[Download all](#)

434 views

1 shares

cites coming soon

Published on 26 Oct 2012 - 18:49 (GMT)  
Filesize in total is 72.62 KB

- Discuss open access upfront with collaborators
- Discuss preprints and self-archiving upfront with collaborators
- Document your altmetrics (Impact Story)
- Blog about your science - write so those outside your field can understand
- Be active on social media to increase visibility



## Discussing OA with your mentor

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- Ask your mentor for a meeting to discuss publishing options
- Put together concise (15 mins max) presentation on benefits of OA
- Include **data** (lack of access worldwide, advancements made through open science, citation advantage)
- Explain how your work and the lab could benefit from being open
- Create a list of OA options and share this list with your mentor
- If your mentor insists on a toll access journal, discuss submitting an author addendum
- Start these discussions EARLY!!

From interview with ARCSCon at [arcscon.tumblr.com/post/84942060277/advocating-for-openness](https://arcscon.tumblr.com/post/84942060277/advocating-for-openness)

## How to support ECRs in being open

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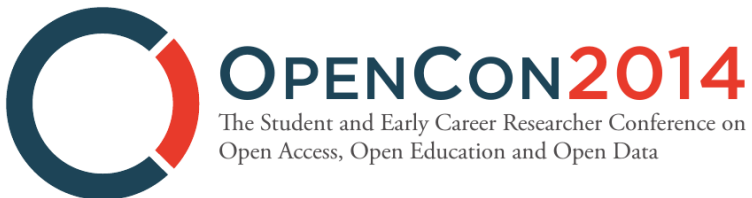
- LISTEN! LISTEN! LISTEN!
- Lead by example - be open and others will see benefits
- Be receptive - answer emails, tweets, questions from ECRs about OA
- Say yes to giving tutorials, guest lectures, talks at meetings
- Do not consider where people publish in making hiring, grant, or tenure decisions
- Write open access publishing funds into your grants
- Create incentives for being open



Photo: listentomyvoice via flickr

## Empower ECRs to advocate for change

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More info: [www.righttoresearch.org/act/opencon/](http://www.righttoresearch.org/act/opencon/)

# In sum...Don't lock up your research!

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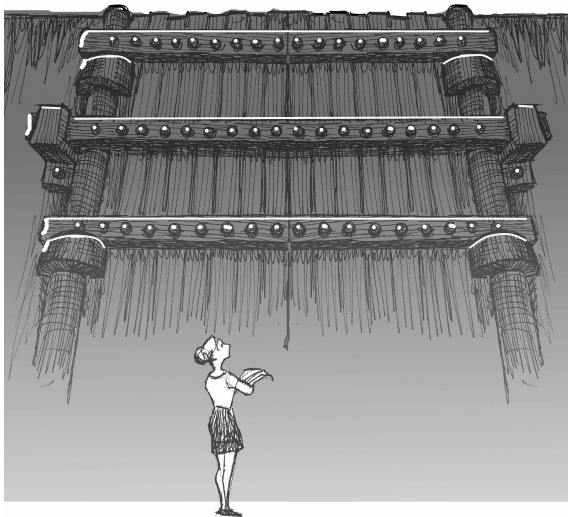


Image: John R. McKiernan

## Take-home messages

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- There does not have to be a conflict between being open and being successful.
- Being open does not have to hurt your career - it can help it!
- At any stage of your career, you have the right to stand up for your beliefs.
- If you believe in openness, stand up for it. Make it happen.
- Opening up academia starts with you and the choices you make.



Photo: Gideon Burton via flickr

# These are some of the people you will help...Thank you!

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UPR Cayey



INSP México

